



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,268	11/19/2003	Jozef Brcka	TAZ-248	7396

37694 7590 10/18/2006

WOOD, HERRON & EVANS, LLP (TOKYO ELECTRON)  
2700 CAREW TOWER  
441 VINE STREET  
CINCINNATI, OH 45202

EXAMINER
----------

DHINGRA, RAKESH KUMAR

ART UNIT	PAPER NUMBER
----------	--------------

1763

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/717,268

Applicant(s)

BRCKA ET AL.

Examiner

Rakesh K. Dhingra

Art Unit

1763

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 06 October 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 03 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
see continuation sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

  
**PARVIZ HASSANZADEH**  
**SUPERVISORY PATENT EXAMINER**

  
Rakesh Dhingra

## Comments on applicant's remarks:

## Regarding Claim 22:

1) Applicant argues that the cited references (Pu et al etc) do not disclose all the elements of claim 22, like:

a peripheral ionization source that is configured to couple energy through the dielectric chamber wall in a ring-shaped distribution into the chamber ....

the peripheral ionization source having a segmented configuration ..... in an alternating high and low power distribution to produce a stationary ring shaped plasma of alternating high and low density in the chamber.

Examiner responds that Pu teaches a coil array 30 with segmented configuration with coils 40, 42 arranged in ring form and that currents in adjacent coils can be configured to produce magnetic field of opposite polarity (that is the power distribution in adjacent segments of coil can be controlled, including having alternating high and low power distribution). Pu et al also teach that plasma density distribution can be controlled (that is, shape of plasma could be controlled) by changing/optimizing factors related factors like diameter of antenna coil, penetration distance etc and plasma density near the chamber wall can be maximized by optimizing the position coil with respect to cover 58 (column 7, lines 15-40). Further, inductance of antenna would be dependent upon the number of turns in the coil, no of coils and the current flowing, which factors would obviously be optimized as per process limitations. Thus Pu reference when combined with Brcka teaches the claim limitations and rejection of claim 22 is maintained.

2) Applicant also argues that Pu does not teach other features covered in claims 23, 24 like high and low radiation segments are recited as high and low efficiency sections and high and low efficiency sections are recited as being formed of small cross-section conductors and relatively large cross section conductors.

Examiner responds that Pu teaches coils segments that can produce high and low power distribution (that is high and low efficiency sections) and the coils comprise copper conductor 43. Further, the size and number of turns of wire would be dependent upon current flow and magnetic field to be developed by the coil array. Thus Pu et al in view of Brcka teach claim limitations of claims 23, 24 and their rejection is maintained.

In view of comments above, rejection of claims 11-13 is also maintained.

3) Applicant argues that Pu does not teach limitations of claims 3-6 (claim 7 does not pertain to elected species) that is, shield with high-transparency sections having a plurality of slots there-through and low-transparency sections that are electrically conductive and generally solid relative to the high- transparency sections.

Examiner responds that for rejection of claims 3-6, reference by Todorov was additionally used in the office action, which teaches a shield 120A with plurality of radially extending slots 212 (like high transparency sections) in between plurality of copper conductors (solid) [like low transparency section] which reads on claim limitations, absent any additional structural limitations in the claim. Thus the rejection of claims is maintained.

In view of above, the rejection of claims 3, 4, 6, 11-13, 15 and 22-24 under 35 USC 103 (a) is maintained.

4) Applicant's remarks regarding double patenting rejection are acknowledged.